The Journal of Cell Biology

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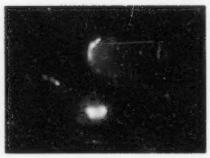
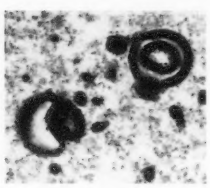


Secretory vesicle movement to the bud is slower when directed by a short-lever-arm myosin-V mutant (lower left) as compared to movement directed by a wild-type myosin-V (upper right). See page 35.



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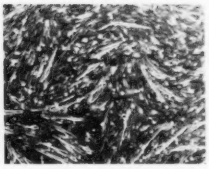

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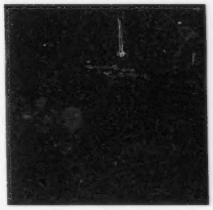

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GRASP65 cleavage during apoptosis helps fragment the Golgi apparatus (green). See page 495.

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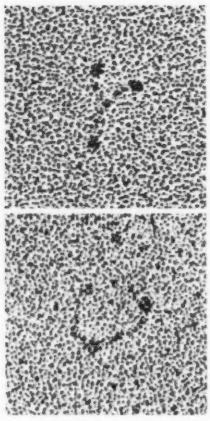

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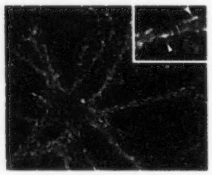

Nectin-1 (green) and nectin-3 (white) colocalize at developing synapses. Inhibition of nectin-based adhesion results in impaired synapse formation. See page 555.

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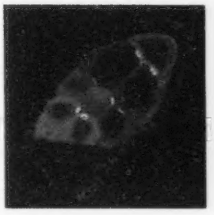

On the Cover

Arp3 (green), as part of the Arp2/3 complex, colocalizes with actin (red) in the ring canals that connect nurse cells of the Drosophila egg chamber. Arp2/3-driven actin polymerization drives ring canal expansion and many other actin-dependent processes. See page 703.

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***Drosophila* Kelch regulates actin organization via Src64-dependent tyrosine phosphorylation** 703

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Coordination of opposite-polarity microtubule motors 715

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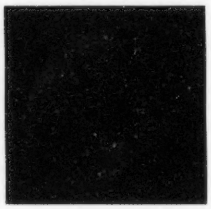
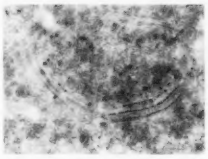


RanGAP1 (red) concentrates near kinetochores of mitotic cells due to conjugation by the ubiquitin-like protein SUMO-1. See page 595.



CLIPR-59 (large gold particles), a CLIP-170–related protein, colocalizes with a marker for the trans-Golgi (small gold particles), where it regulates endosome trafficking. See page 631.

Purification of pseudopodia from polarized cells reveals redistribution and activation of Rac through assembly of a CAS/Crk scaffold 725

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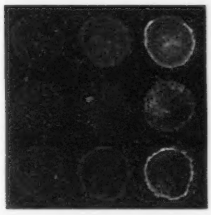

On the Cover

c-Abl (red, upper right hand corner) and actin (green) colocalize and regulate each other reciprocally such that actin-based protrusion is subject to a form of feedback control. The other panels show variable localization of other signaling proteins with actin. See page 879.

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In vivo binding of active heat shock transcription factor 1 to human chromosome 9 heterochromatin during stress 775

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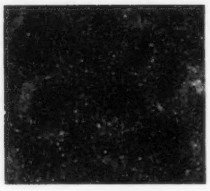
Ubiquitination and proteasomal activity is required for transport of the EGF receptor to inner membranes of multivesicular bodies 843

K.E. Longva, F.D. Blystad, E. Stang, A.M. Larsen, L.E. Johannessen, and I.H. Madshus



Binding of EGF to EGFR (green) leads to colocalization with the ubiquitin ligase c-Abl (red) in vesicular compartments. Sustained ubiquitination is important for sorting of EGFR to degrading compartments. See page 843.

Interactions and regulation of molecular motors in *Xenopus* melanophores 855

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Trypanin is a cytoskeletal linker protein and is required for cell motility in African trypanosomes 867

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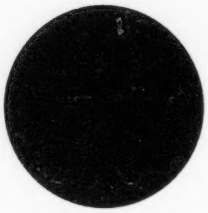

Trypanin (red) is a cytoskeletal linker required in the flagella of *Trypanosoma brucei* for directional cell motility. See page 867.

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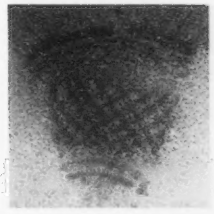

On the Cover

The conoid of *Toxoplasma gondii* is a novel tubulin-based structure that is wound into a spiral like a compressed spring. Extension of this structure (as in the figure) may help the parasite move into and out of host cells. See page 1039.

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Osmotic stress–induced increase of phosphatidylinositol 3,5-bisphosphate requires Vac14p, an activator of the lipid kinase Fab1p 1015

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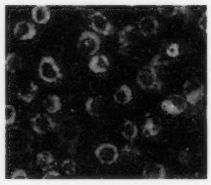
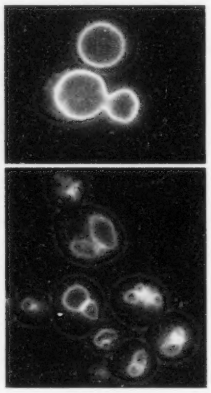
The role of ARK in stress-induced apoptosis in *Drosophila* cells 1077

K.C. Zimmermann, J.-E. Ricci, N.M. Droin, and D.R. Green



***Drosophila* mitochondria do not lose their membrane potential (orange) or release cytochrome c during stress-induced apoptosis. See pages 1077 and 1089.**



Vac14p is needed to trigger fragmentation of vacuoles during osmotic stress (bottom). It does so by regulating Fab1p and thus increasing the levels of phosphatidylinositol-3,5-bisphosphate. See page 1015.

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